

PROCEEDINGS
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DESCRIPTION OF A NEW SUBSPECIES OF *RANA*
PRETIOSA FROM NEVADA.

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During the summer of 1912 the Walker-Newcomb Expedition to northeastern Nevada collected a series of frogs which are closely related to *Rana pretiosa*, but which differ from the typical form in structure and in coloration sufficiently to require subspecific recognition. I am indebted to Dr. Alexander G. Ruthven, Head Curator of the Museum, for permission to publish this description, and to Dr. Leonhard Stejneger for the loan of specimens of *Rana pretiosa* from the collection of the U. S. National Museum.

***Rana pretiosa luteiventris* subsp. nov.**

Diagnosis.—Form as in *Rana pretiosa*. Head broader than long; tympanum smaller than eye; vomerine teeth in two oblique patches extending behind internal nares. Lateral folds inconspicuous. Heel of extended hind limb reaching between middle of tympanum and end of snout; small inner metatarsal tubercle, no tubercle at base of fourth toe; palmar tubercle indistinct or lacking. Color above varying from bright to dark yellowish brown on upper surface; back between lateral folds with few or many irregular dark blotches; under surface anteriorly whitish mottled with grey, posteriorly orange yellow.

Habitat.—Humboldt and Maggie Valleys in Maggie Basin, Eureka and Elko Counties, Nevada.

Type-specimen.—Museum of Natural History, University of Michigan, Cat. No. 43,037; Anne Creek, Elko Co., Nevada; July 16, 1912; Crystal Thompson, collector.

Description of type-specimen.—Form stout. Head broader than long; snout rounded; external nares small and round, nearer end of snout than eye; eye small; tympanum small, three-fifths the size of the eye; tongue large and fleshy, strongly notched behind; vomerine teeth extend-

ing back in two oblique patches from the inner edge of the internal nares. Skin roughly tubercular; sides, outer surface of leg and lower surface of foot covered with small pointed granules; lateral folds inconspicuous; glandular ridge along the jaw, interrupted at the angle of the jaw and at the shoulder by a ridge curving behind the tympanum; fold of skin across the chest. Fingers not webbed, first slightly longer than second, palmar tubercle indistinct. Legs massive, length to heel equaling that of body forward to anterior corner of eye; foot broadly webbed, terminal joint of fourth toe free; small inner metatarsal tubercle, no outer tubercle (Pl. III, Fig. 2). Color above greyish brown; a few irregular dark spots between lateral folds; a light glandular ridge along the jaw; sides grey, tubercles tipped with light; limbs obscurely mottled with dark; under surface whitish, mottled with dark anteriorly, orange yellow (171)* posteriorly.

Notes on paratypes.—There is little individual variation in the series of forty-seven specimens examined, except in coloration and the length of the hind limb. In the brighter colored specimens the lateral folds are lighter than the ground color. There is occasionally a trace of a dark cheek patch, and the spots on the back may be obscure or distinct and few or many in number. The bright color on the ventral surface varies from a faint yellowish tinge on the feet of the young specimens to orange yellow (141, 156, 161, 171) in adults, and it may be present on the thighs, may extend in a more or less U-shaped blotch on the belly, or may cover the entire ventral surface to the shoulder girdle.

Description of tadpole.—(No. 43,073, Museum of Natural History, University of Michigan, collected July 10.) Length of body, 34 mm.; width, 22 mm.; length of tail, 67 mm.; height, 13 mm. Nostrils nearer eyes than end of snout, distance between them half the interocular space. Spiraculum sinistral. Anal opening dextral in caudal crest. Legs well developed, with small but distinct tubercle at base of fourth toe. Labial papillae interrupted in center above, series of labial teeth $\frac{2}{3}$, second upper series interrupted in middle (Pl. III, Fig. 3). Color in alcohol brownish grey above, with lateral folds a little lighter; belly greyish white; muscular part of tail yellowish white with small grey spots; caudal crests grey with darker spots.

Remarks.—*Rana pretiosa luteiventris* may be readily distinguished from *Rana pretiosa* by the difference in coloration and the absence of the tubercle at the base of the fourth toe in the mature stage (cf. Figs. 1 and 2, Pl. III). Also the palmar tubercle is either lacking or much less distinct than that of the typical form, as shown in Figs. 1 and 2, Pl. III, and as figured by Dickerson † and Cope. ‡

Habitat and habits.—This species was common in the irrigation ditches along Anne Creek, in Anne Creek, in the oxbow ponds in Maggie Canyon, and a few were found in Maggie Creek below the canyon, in Susan Creek and the Valley of the Humboldt River, in Maggie Basin. It is quite

* Klincksieck et Valette, Code des Couleurs, Paris.

† The Frog Book, Color Plate XVI.

‡ Batrachia of North America, Bull. 34, U. S. Nat. Mus., p. 434.

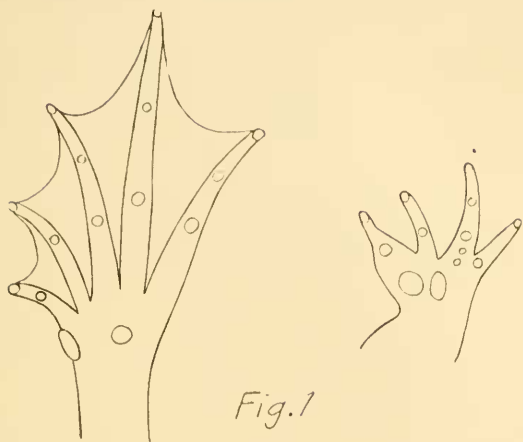


Fig. 1

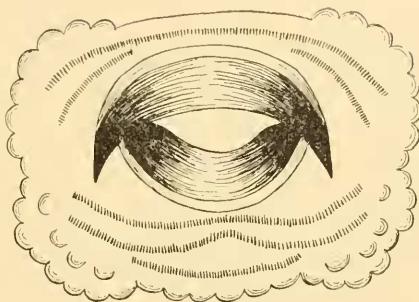


Fig. 3

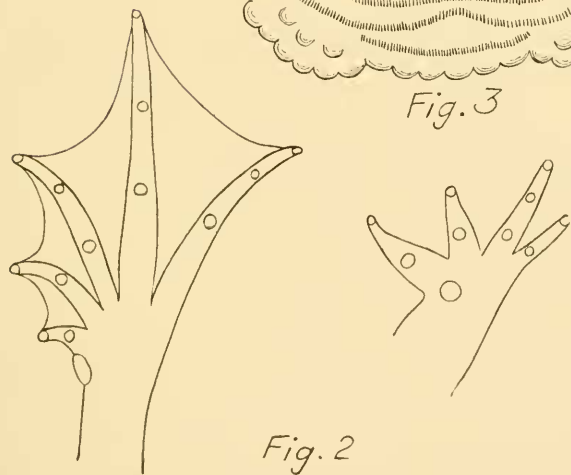


Fig. 2

Fig. 1.—*Rana pretiosa*, No. 26,001, U. S. National Museum. Foot and hand.

Fig. 2.—*Rana pretiosa luteiventris*, No. 43,037 (type), Museum of Natural History, University of Michigan. Foot and hand.

Fig. 3.—*Rana pretiosa luteiventris*, No. 43,073, Museum of Natural History, University of Michigan. Mouth of tadpole.